

ENDEAVOR

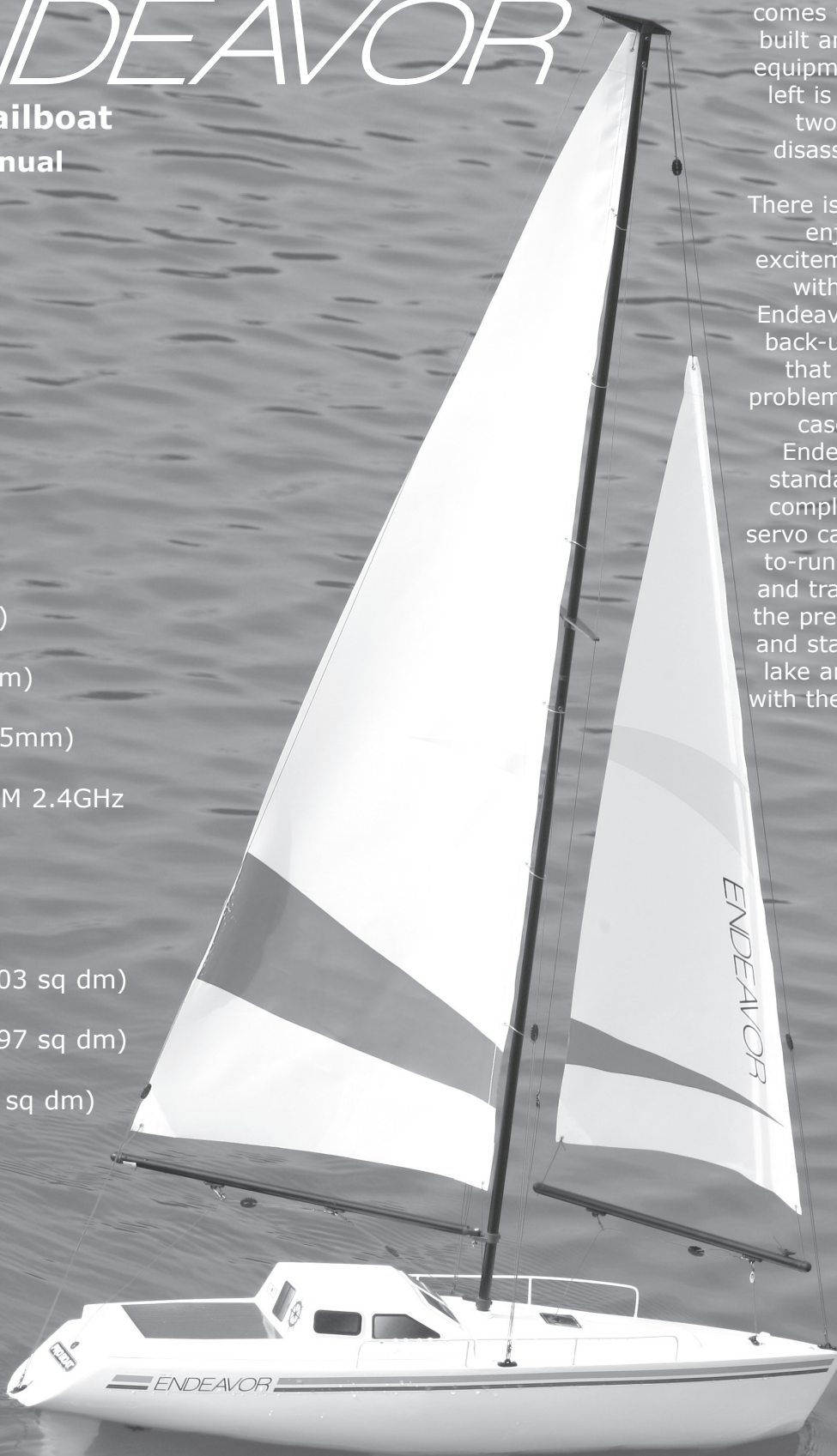
EP RTR Sailboat Owners Manual

Specifications

- Length (Hull):
24 in (610mm)
- Height (Mast):
36.5 in (927mm)
- Beam:
6.25 in (158.75mm)
- Radio:
Spektrum DX2M 2.4GHz
- Motor:
380-size

- Sail area:
Overall:
264 sq in (17.03 sq dm)
- Main:
170 sq in (10.97 sq dm)
- Jib (Front):
94 sq in (6.06 sq dm)

The Pro Boat® Endeavor™ comes with the fiberglass hull built and painted and the RC equipment installed. All that's left is rigging the sails. The two-piece mast makes disassembly and transport quick and easy. There is no better way to start enjoying the fun and excitement of RC sailing than with the Endeavor. The Endeavor features an electric back-up motor that ensures that you won't have any problems returning to shore in case of wind loss. The Endeavor also features a standard sail servo with no complicated pull-pull winch servo cables and comes ready-to-run with battery, charger and transmitter. Just connect the pre-numbered sail rigging and start sailing. Head to the lake and begin sailing today with the perfect choice for any RC enthusiast.



PRO BOAT

NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit www.horizonhobby.com and click on the support tab for this product.

Meaning of Special Language:

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

NOTICE: Procedures, which if not properly followed, create a possibility of physical property damage AND little or no possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.



WARNING: Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

Additional Safety Precautions and Warnings

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

This model is controlled by a radio signal subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance in all directions around your model, as this margin will help avoid collisions or injury.

Age Recommendation: Not for children under 14 years. This is not a toy.

- Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Always keep all chemicals, small parts and anything electrical out of the reach of children.
- Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to electronics.
- Never place any portion of the model in your mouth as it could cause serious injury or even death.
- Never operate your model with low transmitter batteries.

Introduction

Thank you for purchasing the Pro Boat® Endeavor™ EP ready-to-run sailboat. This craft has been designed to provide many hours of scale sailing pleasure, without the long hours of assembly usually associated with a model RC sailboat. The Endeavor EP can leisurely be completed in less than an hour.

No Building!

The Endeavor EP comes almost completely assembled. Its durable molded fiberglass hull has been pre-painted for your convenience. You will only need to finish rigging the sails. The detailed instructions, photos and glossary at the back of the manual will allow you to easily complete the assembly.

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Items Required to Complete your Endeavor

Phillips screwdriver	Small pliers
AA batteries (4)	Threadlock

Section 1 – Inspection

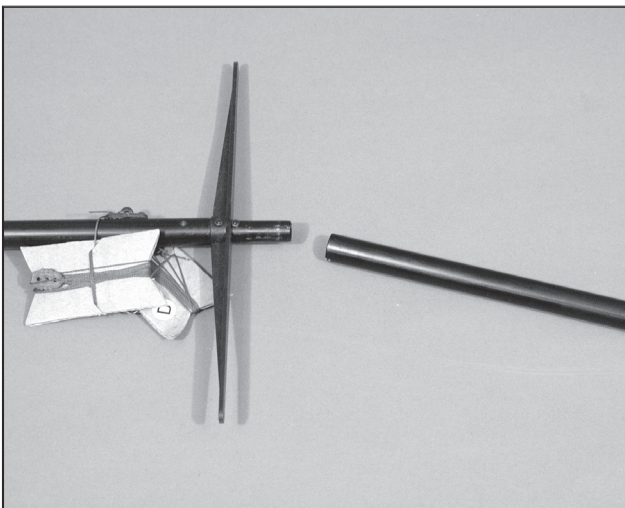
Carefully remove the boat, boat stand and radio transmitter from the box. Inspect the boat and make certain that no damage is present. If any damage is found, please contact the Pro Boat retailer where the model was purchased.

Section 2 – Rigging Installation

- 1. Assemble the boat stand as shown and use a wood glue or CA hobby glue to bond the pieces together. Place the hull on the stand.



- 2. Slide the upper and lower mast halves together.



- 3. Slide the mast assembly into the fitting on the top of the hull.

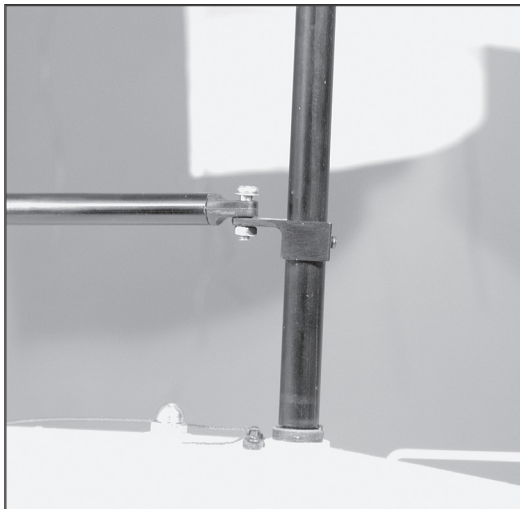
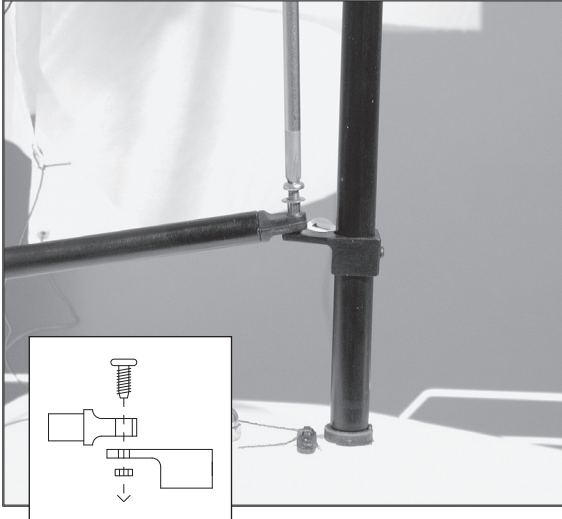


- 4. Carefully unroll the sails from the mast. The main sail will be attached to the top of the mast at the crane. The jib sail (front sail) will be attached to the front of the crane as shown.

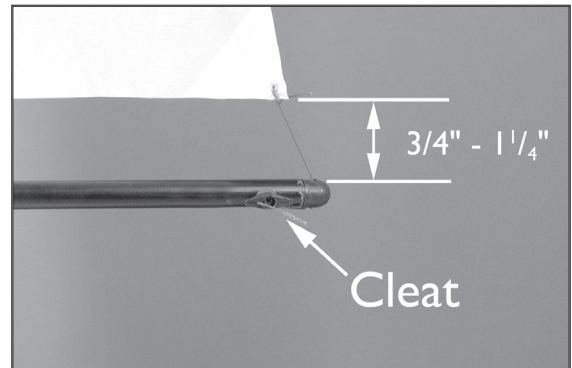


Section 2 – Rigging Installation

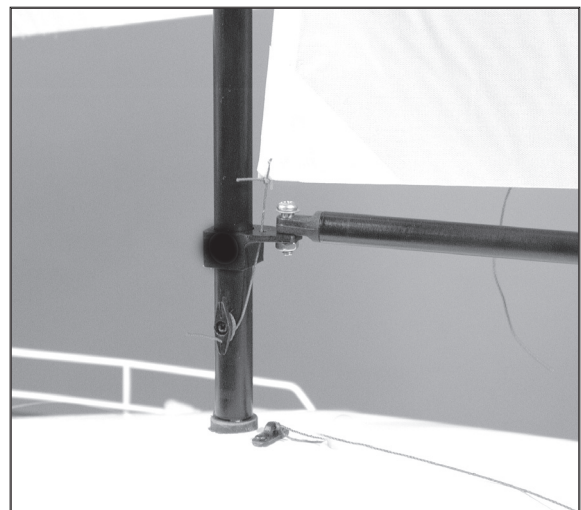
- 5. Locate the main sail boom. Slide the screw through the eyelet and use a Phillips screwdriver to secure the end of the boom. Do not over tighten as the sail boom will move as the sails are adjusted. Apply a drop of threadlock on the nut and thread it onto the screw from the bottom of the boom mount.



- 6. Locate the end of the main sail marked "G". Pass the line tied to the main sail through the hole in the rear end of the main sail boom. Pull the line until the main sail is taut, and the distance between the boom and sail is between 3/4-inch and 1 1/4-inch. Secure the excess line by wrapping it around the cleat and placing the end of the line in the notches of the cleat.



- 7. Locate the other end of the main sail. Pass the line tied to the main sail through the hole in the boom mount. Position the line so the distance between the boom and sail is equal to the other side of the sail. Secure the excess line by wrapping it around the cleat and placing the end of the line in the notches of the cleat.



Note: Do not adjust the tension of any of the lines at this time. This will be done in Section 4, "Adjusting the Rigging Cables."

Section 2 – Rigging Installation

- 8. Carefully unwrap the top, side rigging lines.



- 9. Insert the side rigging line into the outer hole in the spreader as shown.

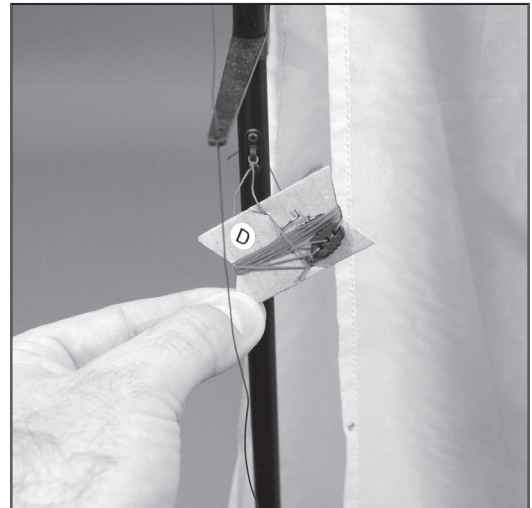


Note: The spreader has a small notch in the outer hole. The inner hole will not be used, making it easier to insert the line. Simply push the rigging line through the slot.

- 10. Open the rigging clip and attach it to the eye plate marked "C, D." Close the wire clip.



- 11. Carefully unwrap the mid-line rigging marked "D."



- 12. Open the rigging clip and attach it to the eye plate marked "D." Close the wire clip.

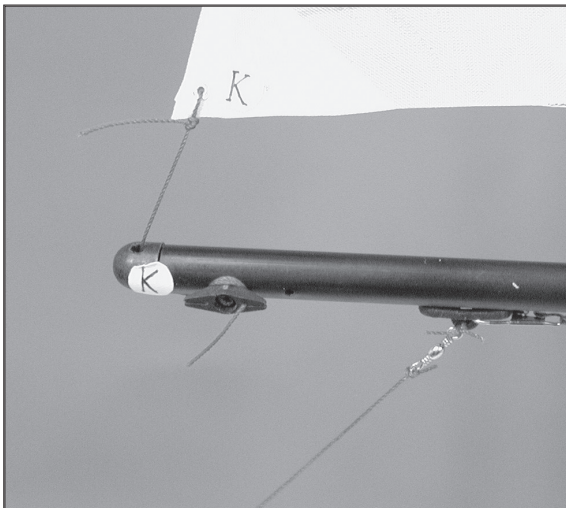


Section 2 – Rigging Installation

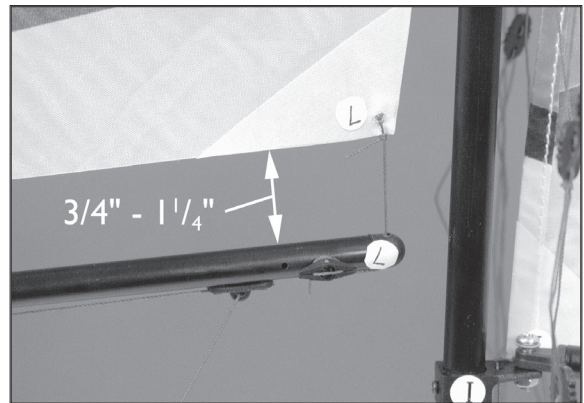
- 13. Locate the jib sail boom. The end of the jib boom with the cleat should be on the top and nearest the front of the boat. Pass the rigging line from the front of the jib sail into the hole on the end of the boom.



- 14. Position the line so the distance between the boom and sail is between 3/4-inch and 1 1/4-inch. Secure the excess line by wrapping it around the cleat and placing the end of the line in the notches of the cleat.



- 15. Repeat Step 17 for the other end of the jib sail.



Hint: The jib boom will be parallel to the bottom of the jib sail once Steps 17 and 18 are complete.

- 16. Carefully unwrap the bow rigging cable marked "A." Attach the rigging cable to the fitting at the bow of the boat marked "A."



- 17. Carefully unwrap the stern rigging cable marked "B." Attach the rigging cable to the fitting at the stern of the boat marked "B."



Section 3 – Main Sail Luft Ring Installation

- 1. Locate one main sail luft ring. Open the ring and insert the small loop of the ring through the eyelet in the main sail.



- 2. Snap the luft ring around the main mast.



- 3. Repeat Steps 1 and 2 for the remaining luft rings.

The rigging for the main and jib booms are shown in the photos below.



Section 4 – Adjusting the Rigging Cables

- 1. Locate the jib stay on rigging lines "C" and "D" on either side of the boat. Pull up carefully on the jib stay to adjust the tension so there is no slack in the line. Work slowly and adjust both lines so the main mast is completely vertical.



- 2. Adjust the jib stay on the rigging line at the bow "A" and stern "B" of the boat. Tension the rigging lines so the mast is perpendicular (square) to the hull of the boat.



Section 5 – Transmitter and Receiver Battery Installation

Install 4 AA alkaline batteries into the radio transmitter, following the instructions for your radio system. Carefully place the sailboat hull into the included boat stand, if it is not already there. Next, remove the radio box lid (scale cockpit) of the boat carefully, as it is secured by magnets at the rear of the cockpit. Locate and charge the power battery pack for 2-3 hours, closely monitoring the temperature of the pack. If it becomes warm to the touch, immediately end charging.



Confirm that the receiver switch is in the "off" position and that the sail servo arm is not touching the power switch. Connect the power battery. Secure the battery to the battery box with hook and loop material.

Note: The radio box lid has been removed for photography.

⚠ WARNING: Do not charge the battery overnight or on or near flammable materials.



For fast charging at the lake, The PRB1203 12V DC 6-7C Peak Charger can be purchased separately.

Section 6 – Checking the Radio System

Turn on the radio system and test it to make certain it is functioning correctly. First, turn on the transmitter. Next, turn on the switch that controls the receiver.

- Moving the right stick of your transmitter will control the rudder. To turn to the right, simply move the stick to the right, and the rear of the rudder should also move to the right. Do the opposite to turn left.
- Moving the left stick of the transmitter will control the sails. By moving the left stick upward, you will let the sails out. By pulling the left stick down, you will tighten the sails.
- Once the sails are pulled in, with the sail control in the fully lower position, move the sail trim adjustment toward the bottom of the transmitter to operate the motor.



- When the radio system is working correctly and the sails and fittings are properly adjusted, you are ready to sail.
- After sailing, turn the receiver off before turning the transmitter off.

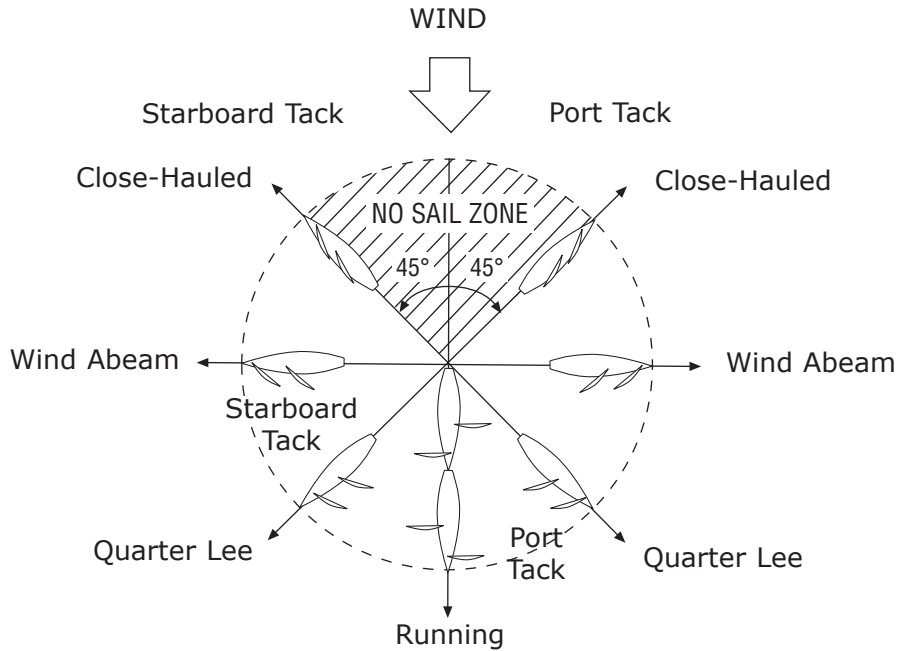
Never sail with the sail trim adjusted to a position that will allow the motor to turn on.

Note: The motor is for intermittent use only. If you notice the power slowing, stop motor use immediately and recharge the battery. Continued use will cause the radio system to lose control.

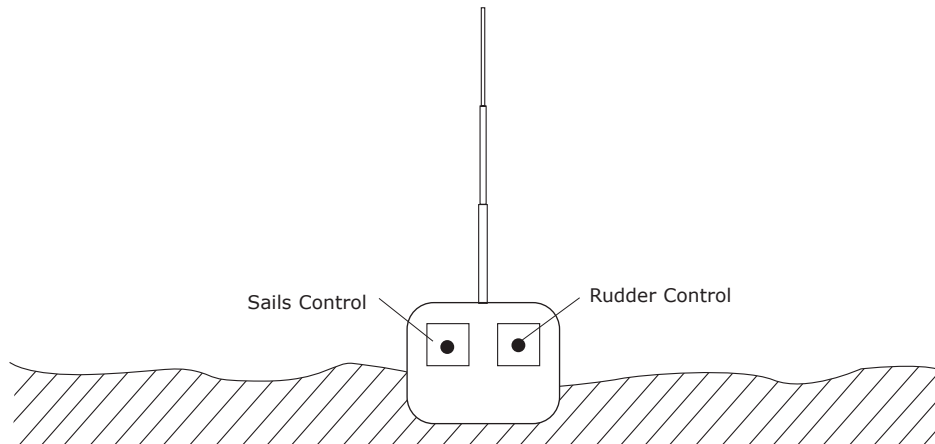
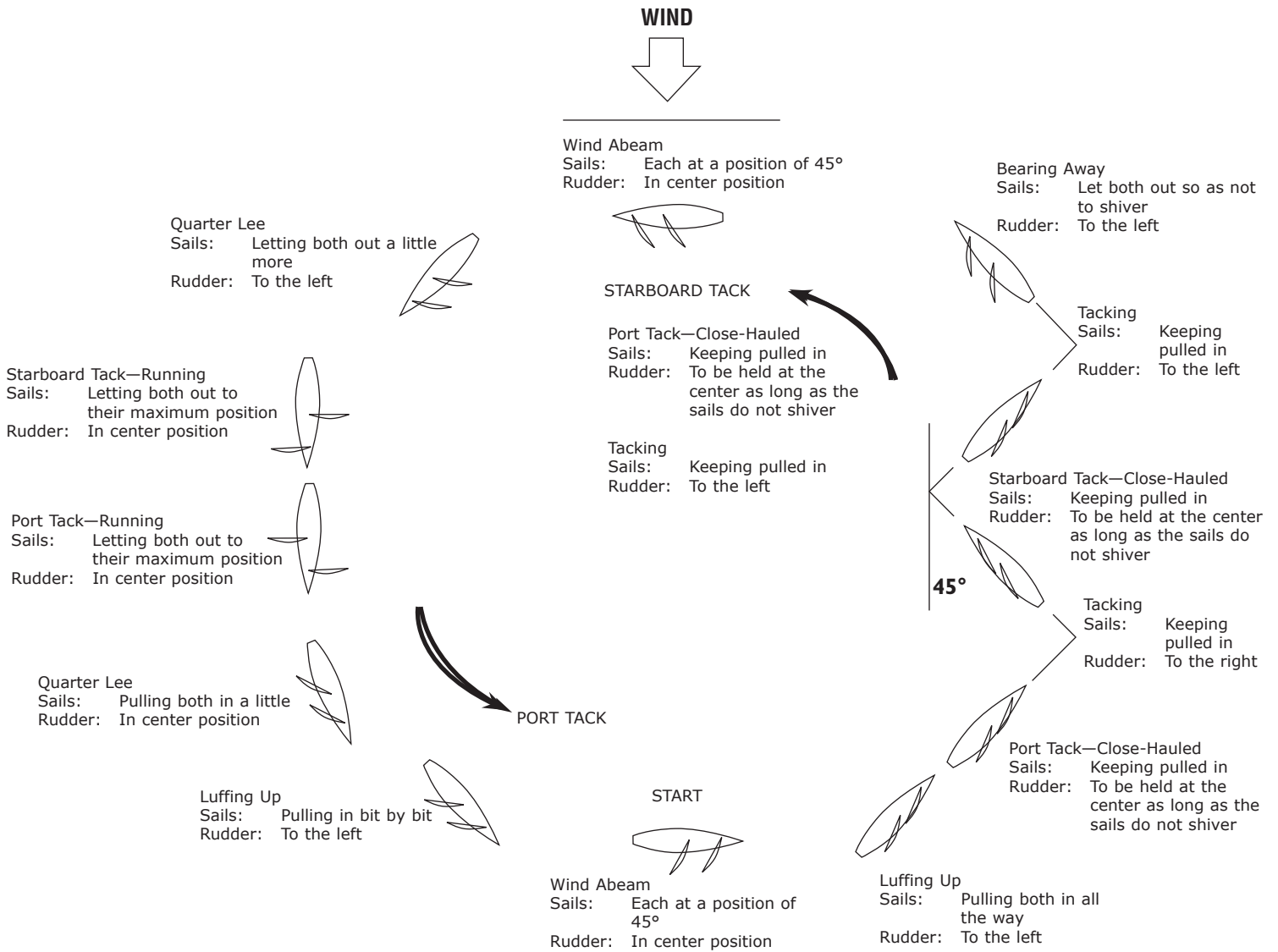
Section 7 – Sailing Tips

The following will help you get started in sailing. Follow the instructions and understand it takes some practice to become an accomplished yachtsman.

Do not sail if the winds are too strong. Best results will occur with winds between 5 and 12 mph.



Section 7 – Sailing Tips



Section 8 – Performance Tips

After you have finished rigging the sails, it will be helpful to trim the sails in order to optimize the performance of your boat. It is often necessary to briefly sail the Endeavor in order to see how the sails need to be trimmed. This section covers hints and tips for trimming your Endeavor for the best performance. Remember to take your time to optimize your sailing pleasure.

- 1. Check to make sure the main boom and jib boom are in line with each other. Adjust the jib stay at the top of the jib sail to position the jib boom.



- 2. With the radio system on, move the left stick on your transmitter "up" and manually push the main sail and jib sail open. You should be able to open the sails to at least a 60-degree angle. If you cannot do this, it will be necessary to adjust the length of the line (allowing more slack) by adjusting the jib stays located underneath the main sail and jib sail booms. See Section 3 Step 3 for rigging adjustment locations

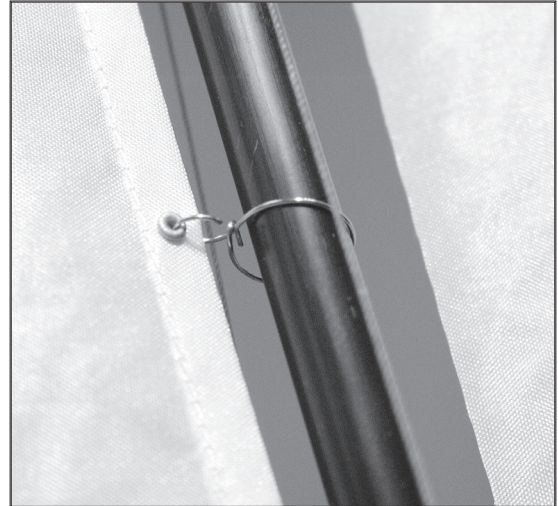


Section 8 – Performance Tips

- 3. With the radio system on, move the left stick of your transmitter "down" to close the sails. The sails should close, with the jib sail being tighter than the main sail. There should be some slack left in the sail rigging when the sail gimbal moves the sails in. There should also be enough movement to turn on the motor switch when the trim adjustment is moved to the lower fully trimmed position.



- 4. Bend the opening of each of the luft rings after you have secured the main sail to the mast, so they will not be pulled out of the sail or from the mast.



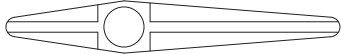
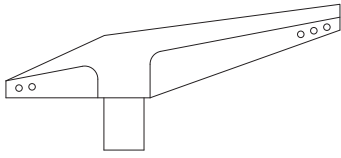
Replacement Parts

PRB2451Hull only
 PRB2452Hatch
 PRB2453Mast Set
 PRB2454Boom Set
 PRB3010Motor
 PRB2456Drive Shaft Set
 PRB2457Plastic Parts Set
 PRB2458Rudder
 PRB2459Pushrod Set
 PRB2460Sails
 PRB2461Power Switch
 PRB2462Wiring Harness

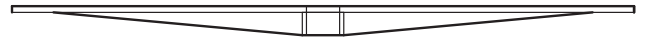
PRB2463Boat Stand
 PRB2181Screw Lock Pushrod Connector
 PRB2183Rigging Line Clips
 PRB2186Sail Luft Rings
 PRB2187Pushrod Nylon Clevis
 PRB2188Sail Boom Screw and Eyelet
 PRB2407Plastic Parts Tree
 PRB2409Rigging Line
 PRB2464propeller
 SPMR2200Transmitter Only
 SPMR200Marine 2.4GHz 2-Ch Sport Receiver
 PRB8061Servo

Country of Purchase	Horizon Hobby	Address	Phone Number/Email Address
United States of America	Sales	4105 Fieldstone Rd Champaign, Illinois 61822 USA	800-338-4539 sales@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 sales@horizonhobby.co.uk
Germany	Horizon Hobby GmbH	Hamburger Str. 10 25335 Elmshorn Germany	+49 4121 46199 60 service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70 infofrance@horizonhobby.com

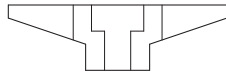
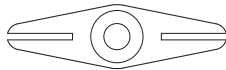
Plastic Parts



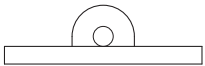
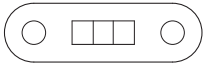
Masthead Crane



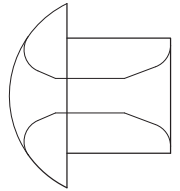
Spreader



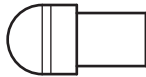
Cleat



Eye Plate



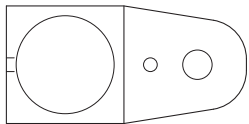
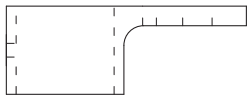
Rigging Line Grommet



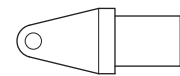
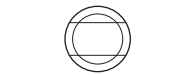
Boom Plug



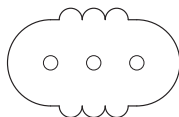
Mast Holder



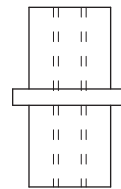
Gooseneck



Boom Pivot



Jib Stay



Mast Joiner

Basic Glossary

Beam Reach

Sailing at approximately 90 degrees to the wind source with the wind coming from abeam.

Beating

Sailing toward the wind source or against the wind with the sails pulled in all the way, tacking as you go, to reach a destination upwind.

Boom

The horizontal spar to which the foot of a sail is attached.

Bow

The forward end of a boat.

Cleat

A fitting to which the rigging line may be secured.

Downwind

Sailing away from the wind with the sails let out all the way.

Jib Sail

The smaller sail attached at the bow of the boat.

Jib Stay

Device used to adjust the tension of the rigging lines.

Knot

One nautical mile per hour (one knot equals 1.2 mph).

Main Sail

The largest working sail that is attached to the mast.

Mast

Vertical spar to which the rigging and sails are attached.

Port

The left side of the boat (when facing forward).

Rudder

Vertical plate attached at the stern, controlling the movements of the boat.

Starboard

The right side of the boat (when facing forward).

Starboard Tack and Port Tack

The right side of the boat is called the starboard side and the left side is called port. When the boat sails with the wind coming across the starboard side and the main sail is on the port side, the boat is sailing on a starboard tack. When the boat sails with the wind coming across the port side of the boat and the main sail on the starboard side, the boat is sailing on a port tack.

Stern

The back end of a boat.

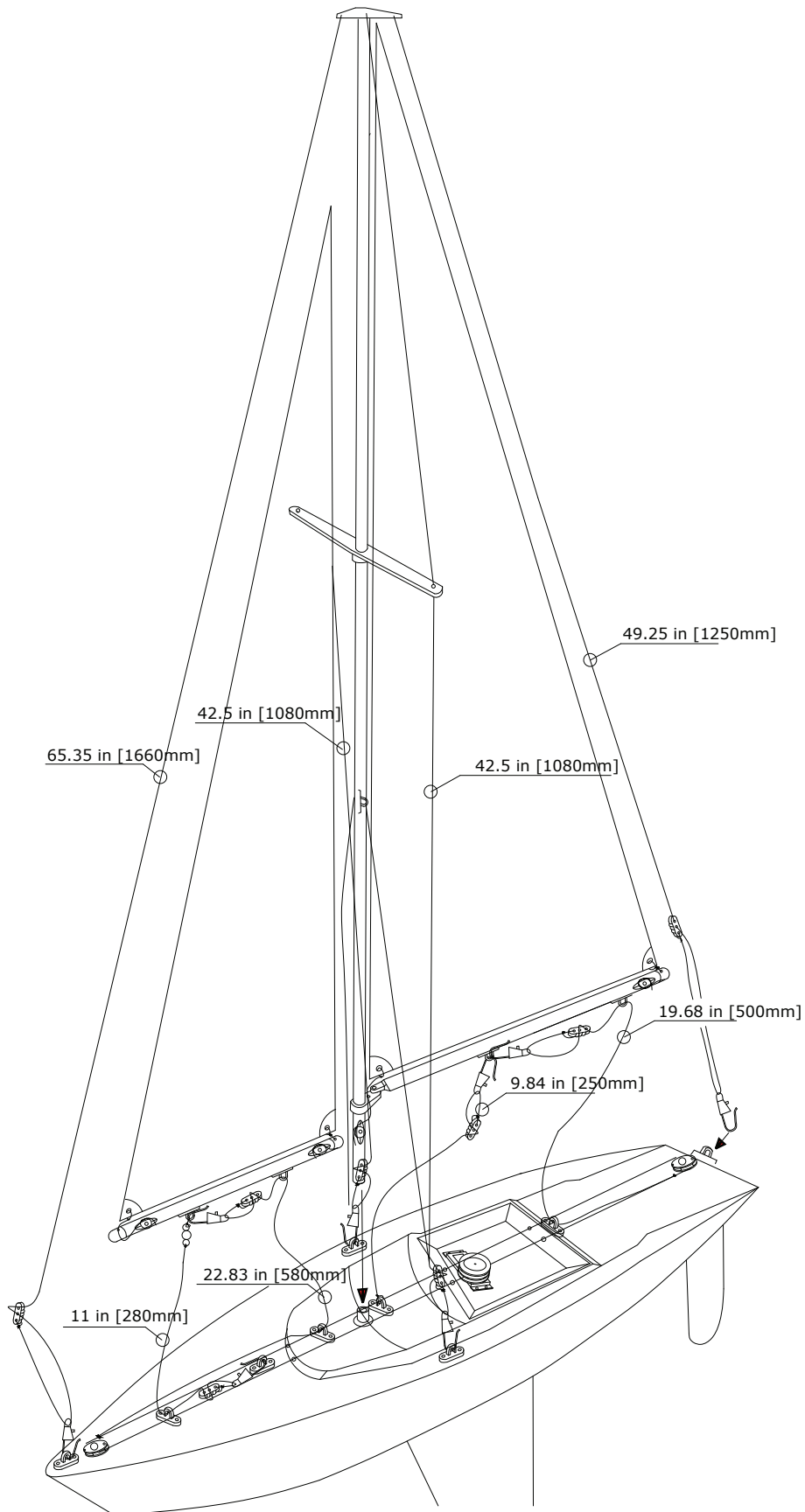
Tack

To turn the bow of a sailboat through the wind so the sails fill to the opposite side.

Weather Helm

The natural tendency of a boat to turn toward the wind.

Diagram of Sailboat Rigging



Warranty and Repair Policy

Warranty Period:

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warrants that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Limited Warranty

Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for all warranty claims.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any Product by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the

Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

WARRANTY SERVICES

Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a Product Support representative. You may also find information on our website at www.horizonhobby.com.

Inspection or Repairs

If this Product needs to be inspected or repaired, please use the Horizon Online Repair Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Repair Request is available at www.horizonhobby.com under the Repairs tab. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for repair. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and

RMA number are clearly written on the outside of the shipping carton.

Notice: Do not ship batteries to Horizon. If you have any issue with a battery, please contact the appropriate Horizon Product Support office.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Repairs

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification

or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of 1/2 hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for inspection or repair, you are agreeing to Horizon’s Terms and Conditions found on our website under the Repairs tab.

Warranty and Service Contact Information

Country of Purchase	Horizon Hobby	Address	Phone Number/Email Address
United States of America	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 Online Repair Request visit: www.horizonhobby.com/repairs
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport@horizonhobby.com

FCC Information

FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

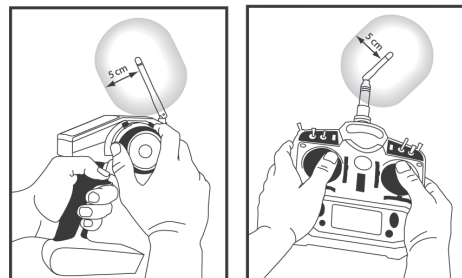
Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

Antenna Separation Distance

When operating your transmitter, please be sure to maintain a separation distance of at least 5 cm between your body (excluding fingers, hands, wrists, ankles and feet) and the antenna to meet RF exposure safety requirements as determined by FCC regulations.

The illustrations below show the approximate 5 cm RF exposure area and typical hand placement when operating your Spektrum transmitter.





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